

IN THE CLAIMS

Claims 1-43, as set forth in the German language text of WO 2005/007406, as well as claims 1-42 filed under Article 34 by KBA on April 27, 2005 were previously cancelled. Please now cancel claims 1-43, all of the claims set forth in the verified translation of WO 2005/007406. Please also cancel claims 44-86 as set forth in the Preliminary Amendment. Please add new claims 87-133 as follows.

Claims 1-86 (Cancelled)

87. (New) A method for affecting a fan-out effect on a printed image on a web including:

 providing a web having a web width and having a printed image;

 providing image points of two printed image portions of a color separation of a defined color of said printed image;

 providing a sensor;

 using said sensor for detecting said image points of said printed image over at least one-quarter of said web width;

 providing image data of said defined color from a print pre-stage;

 using said print pre-stage image data as a reference position;

 comparing said image points in respect to their axial positions on said web with said reference position;

 determining a deviation of said image points from said reference position;

 providing an actuating member for affecting said fan-out effect; and

sending an actuating command to said actuating member when said deviation exceeds a print normal value.

88. (New) A method for affecting a fan-out effect on a printed image on a web including:

- providing an image area on said web;
- sensing a lateral position of said image area on said web;
- providing a nominal position of said lateral portion of said image area on said web;
- comparing said lateral position of said image area with said nominal position;
- determining a distortion of said image area from said comparison;
- providing a lateral registration control and regulation device;
- providing an actuating means for said lateral registration control and regulation device; and
- using said actuating means for correcting a lateral registration using said lateral registration control and regulation device in response to said distortion.

89. (New) The method of claim 88 further including providing a sensor for recording a measured value of one of a marker and a printed image of said image area and a control device, supplying said measured value to said control device and using said control device for operating said actuating means.

90. (New) A method for affecting a fan-out effect on a printed image on a web including:

providing a web having a web width and having a printed image;

providing a first sensor;

using said first sensor for detecting said printed image over a scanning width of at least one-quarter of said web width and for providing a measured value;

providing a device for affecting a fan-out effect of said web;

providing a lateral registration control and regulation device for affecting lateral registration of said web; and

using said measured value from said sensor for operating said device for affecting said fan-out effect and said lateral registration control and regulation device.

91. (New) The method of claim 90 further including providing a second sensor, arranging said first and second sensors side-by-side, and using each of said sensors for determining said measured value over each said sensor's field of view.

92. (New) The method of claim 88 further including providing a sensor and using said sensor for detecting said image area over at least one-quarter of a width of said web.

93. (New) The method of claim 92 further including providing two imprinted markers of a color separation of a defined color of said image area and comparing said two imprinted markers in respect to their axial position, with a reference position of each of

said two markers.

94. (New) The method of claim 92 further including providing image points of two printed image positions of a color separation of a defined color of said image area and comparing said image positions, with respect to their axial position, with a reference position.

95. (New) The method of claim 92 further including providing a marker of a color separation of a defined color, and comparing an axial position of said marker with a reference position for determining said lateral registration.

96. (New) The method of claim 92 further including comparing an image point of a defined color of said image area of said web with a reference position and using said comparison for detecting said lateral registration.

97. (New) The method of claim 96 further including said reference position as said image point on a previously prepared color printout.

98. (New) The method of claim 96 further including providing said reference position as image data from a print pre-stage.

99. (New) The method of claim 91 further including locating one of said sensors at an area of a center of said web and using said measured value from said center sensor

for said lateral registration control and regulation device.

100. (New) The method of claim 91 further including locating one of said sensors at an area of a center of said web, evaluating measured values from said center located sensor for evaluating a nominal position of a color separation and further evaluating said two measured values from said sensors for delivering a distortion of said printed image in comparison to a preset nominal value.

101. (New) The method of claim 92 further including providing a reference position of a color separation position of said image, comparing an actual color separation position with said reference position and evaluating individual image points with respect to a widening of said printed image with respect to a preset nominal value.

102. (New) The method of claim 87 further including evaluating lateral spacings of several indicated ones of said image points of said printed image and comparing said several individual images with said reference position.

103. (New) The method of claim 102 further including sensing a lateral registration error and subtracting said lateral registration error from said separation image point.

104. (New) The method of claim 103 further including providing a scanning width including a center of said web and determining said lateral registration error of said image area from its nominal position in said web center.

105. (New) The method of claim 103 further including determining several lateral registration errors of said image area outside of a center area of said web by extrapolating several lateral deviations of said image area from image area nominal positions at said web center.

106. (New) The method of claim 87 further including using image data of a nominal position of a reference printout.

107. (New) The method of claim 87 further including using image data from said printing pre-stage as a nominal position.

108. (New) The method of claim 90 further including determining a nominal position of said printed image, sensing if a widening of said printed image exists and using said lateral registration control and regulation device for correcting said lateral registration.

109. (New) The method of claim 88 further including providing a control algorithm and using said control algorithm for evaluating and defining said correction of said lateral registration and said fan-out.

110. (New) The method of claim 88 further including providing first and second corrections of said lateral registration cyclically.

111. (New) The method of claim 110 further including determining said deviation of

said lateral registration in a first step and then determining a distance change between said image points.

112. (New) The method of claim 88 further including sensing a lateral registration of said image area on said web and using a common calculation algorithm for correcting said fan-out and a deviation of said lateral registration.

113. (New) A device for affecting a fan-out effect and a lateral registration of a web being printed, said device comprising:

 a fan-out control device;
 an actuating means controlled by said fan-out control device;
 a lateral registration control and regulation device; and
 an image sensor assembly adapted to sense a printed image over a scanning width of at least a quarter of a web width of the web, said image sensor assembly being usable to supply data to both said fan-out control device and to said lateral registration control and regulation device.

114. (New) The device of claim 113 wherein said image sensor assembly includes first and second image sensors arranged side by side transverse to a travel direction of the web, both of said first and second image sensors being in a signal connection with said fan-out control device, at least one of said first and second image sensors also being in signal connection with said lateral registration control and regulation device.

115. (New) The device of claim 113 further including an evaluation device between said image sensor assembly and said fan-out control device and said lateral registration control and regulation device.

116. (New) The device of claim 113 wherein said fan-out control device and said lateral registration control and regulation device are structurally separate.

117. (New) The device of claim 113 wherein said fan-out control device and said lateral registration control and regulation device are first and second difference calculation algorithms which are coupled to each other.

118. (New) The device of claim 113 wherein said fan-out effect control device and said lateral registration control and regulation device are sequentially running program modules of a common calculation algorithm.

119. (New) The device of claim 113 wherein said actuating means is a roller adapted to selectively be brought into a plane of the web.

120. (New) The device of claim 113 wherein said actuating means is a nozzle adapted to direct a flow of compressed air against the web, said fan-out control device being adapted to set one of a distance of said nozzle from the web and a force of said flow of compressed air.

121. (New) The device of claim 113 wherein said actuating means is a support element having a surface of micro-openings adapted to allow passage of a flow of air to form an air cushion, said fan-out control device setting a distance of said surface of said support element from the web.

122. (New) The method of claim 87 further including using said sensor for detecting said image points of said printed image over at least one half of said web width.

123. (New) The device of claim 113 wherein said scanning width of said image sensor assembly is at least one half of a web width of the web.

124. (New) The method of claim 122 further including using said sensor for detecting said image points of said printed image over a whole width of said web.

125. (New) The device of claim 113 wherein said scanning width of said image sensor assembly is a whole width of the web.

126. (New) The method of claim 87 further including providing said sensor as a line camera.

127. (New) The device of claim 113 wherein said image sensor assembly is a line camera.

128. (New) The method of claim 87 further including providing said sensor as a planar sensor.

129. (New) The device of claim 113 wherein said image sensor assembly is a planar sensor.

130. (New) The method of claim 91 further including providing said first and second sensors as including CCD chips.

131. (New) The device of claim 114 wherein said first and second sensors include CCD chips.

132. (New) The method of claim 88 further including providing a print pre-stage for said web and using image areas from said print pre-stage for providing said nominal position.

133. (New) The method of claim 90 further including providing said printed image on said web using a print pre-shape of said web.